

In the claims:

Claim 1. (Original) A system for remote monitoring of a field grown crop comprising:

- (a) at least one sensor positionable on a plant of the crop, said at least one sensor being for collecting data pertaining to at least one plant derived parameter;
- (b) at least one user client being for receiving and optionally processing said data from said at least one sensor to thereby determine a state of the crop; and
- (c) a communication network for communicating said data from said at least one sensor to said at least one user client.

Claim 2. (Original) The system of claim 1, further comprising at least one additional sensor positionable in proximity to or on said plant of the crop, wherein said at least one additional sensor is an environmental sensor selected from the group consisting of an air humidity detector, an air temperature detector, a wind speed or boundary diffusion layer resistance detector, a solar radiation detector, a soil moisture detector and a soil temperature detector.

Claim 3. (Original) The system of claim 1, wherein said at least one sensor is selected from the group consisting of a leaf temperature detector, a flower temperature detector, a fruit surface temperature detector, a stem flux relative rate detector, a stem diameter variation detector, a fruit growth rate detector and a leaf CO₂ exchange detector.

Claim 4. (Original) The system of claim 2, wherein said at least one additional sensor includes at least one environmental sensor selected from the group consisting of an air humidity detector, an air temperature detector, a boundary diffusion layer resistance detector, a solar radiation detector, a soil moisture detector and a soil temperature detector, and at least one plant-mounted sensor selected from the group consisting of a leaf temperature detector, a flower temperature detector, a fruit surface temperature detector, a stem flux relative rate detector, a stem diameter variation detector, a fruit growth rate detector and a leaf CO₂ exchange detector.

Claim 5. (Original) The system of claim 1, wherein said at least one sensor includes a transmitter for transmitting a signal including said data.

Claim 6. (Original) The system of claim 1, wherein said at least one sensor includes a receiver for receiving a command signal.

Claim 7. (Original) The system of claim 1, wherein said at least one sensor includes a data storage device for storing said collected data.

Claim 8. (Original) The system of claim 1, wherein said communication network is selected from the group consisting of a telephone network, a cellular telephone network, a computer network and a satellite network.

Claim 9. (Original) The system of claim 1, wherein said communication network integrates wire and wireless communication.

Claim 10. (Original) The system of claim 1, wherein said at least one sensor includes a plurality of sensors each being in communication with said at least one user client.

Claims 11-13. (Cancelled)

Claim 14. (Original) The system of claim 1, wherein said at least one user client is selected from the group consisting of a PDA and a computer.

Claim 15. (Original) The system of claim 1, further comprising at least one device in communication with said at least one user client via said communication network, said at least one device being for modifying said state of said plant of the crop, or crop including said plant.

Claim 16. (Original) The system of claim 15, wherein said device is selected from the group consisting of an irrigation device and a climate controller.